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Prioritise people with HIV for COVID-19 vaccination



Almost 2 years into the SARS-CoV-2 pandemic, many people are starting to enjoy freedoms afforded by relaxation of restrictions. Governments are interpreting vaccine roll-out to mean that the catastrophic waves of COVID-19 that have shut down societies are a thing of the past. At the same time, evidence of the interaction between SARS-CoV-2 and HIV is also growing, and the better understanding of clinical outcomes is providing clarity on clinical management and measures needed to protect people with HIV. However, emerging evidence implicates immunosuppression and uncontrolled HIV infection in the generation of new SARS-CoV-2 variants.

Two papers in this issue provide substantial additions to the evidence on clinical outcomes of COVID-19 in people with HIV. Yang and colleagues describe data from the US National COVID Cohort Collaboration, including 1 436 622 adults with COVID-19, of whom 13 170 have HIV. People with HIV had higher odds of COVID-19 death and hospitalisation than did people without HIV. Older age groups and male, Black or African American, and Hispanic or Latinx adults were most at risk. CD4 counts lower than 200 cells per μL were associated with adverse COVID-19 outcomes. Nomah and colleagues describe 749 COVID-19 cases in a Spanish cohort of 13 142 people with HIV: old age, non-Spanish origin, and neuropsychiatric illness, autoimmune disease, respiratory disease, and metabolic disease increased risks of severe outcomes.

In a Comment linked to the two papers, Boffito and Waters say the studies “add to the accumulating evidence for worse outcomes for people with HIV and support early guidance that people with HIV, particularly those with immune suppression, should be prioritised for COVID-19 risk reduction, including vaccination”. We agree with the conclusion that there is an urgent need for vaccination against SARS-CoV-2 for all people with HIV globally.

In addition to worse COVID-19 outcomes for people with HIV, there are growing concerns that SARS-CoV-2 viral evolution in immunocompromised people could hinder the global coronavirus response. In September, in the *New England Journal of Medicine*, Corey and colleagues summarised the growing evidence that immunocompromise is associated with persistent SARS-CoV-2 infection and mutations that might

increase virus transmissibility or enable escape from vaccine protection. Additionally, in a preprint published in *medRxiv* in June, Karim and colleagues describe a case of a South African woman with uncontrolled HIV who had persistent SARS-CoV-2 virus shedding for 210 days, during which time the virus mutated 30 times, with changes including mutations associated with vaccine escape and those found in variants of concern.

Given the interplay between the two pandemic viruses, it is a great concern that vaccine coverage for SARS-CoV-2 is so low for sub-Saharan Africa, the region with the highest burden of HIV. WHO set targets for vaccination coverage of 10% for each country by the end of September 2021, and 40% by the end of the year. However, vaccine coverage in Africa is woefully short of these targets: 15 of 54 countries have fully vaccinated 10% of their population, several have vaccinated fewer than 1% of the population, and others had not even begun their vaccine roll-out by the end of September. Of 270 million vaccines needed to reach WHO's September target, only 200 million have been received. Vaccine campaigns in Africa are dogged not only by supply but also by growing vaccine hesitancy. A survey done in June and July in South Africa showed that 45% of adults age 18–24 years would be reluctant to take the vaccine—a similar survey done at the start of 2021 found that 37% in this age group were sceptical of the vaccine.

As numerous countries begin booster programmes, global disparities in vaccine coverage grow starker. Although there is a strong argument for additional doses for immunocompromised or otherwise vulnerable individuals, the scientific basis for boosting in the general population is poor. The case for ensuring high coverage of vaccines worldwide is irrefutable.

There is an urgent case to ensure that people living with HIV around the world are prioritised for SARS-CoV-2 vaccination. First and foremost to save lives and prevent illness among this clinically vulnerable populations. But vaccination might also block a potential wellspring of variants that could jeopardise the global COVID-19 response. Moreover, the lesson for the global COVID-19 recovery is clear: treatment of HIV must be prioritised to save lives now and to help protect everyone in the event of future pandemics. ■ *The Lancet HIV*

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For a [summary of evidence on SARS-CoV-2 evolution in immunocompromised people](#) see *N Engl J Med* 2021; **385**: 562–66

For the [study of SARS-CoV-2 persistence and evolution in a woman with HIV](#) see *medRxiv* 2021; published online June 4. <https://doi.org/10.1101/2021.06.03.21258228>

For more on [vaccination targets](#) see <https://www.bbc.co.uk/news/56100076>

For more on [vaccine hesitancy in South Africa](#) see <http://www.hsra.ac.za/en/media-briefs/dces/survey-shows-acceptance-of-vaccines>